



**STATE OF MONTANA
MONTANA DEPARTMENT OF TRANSPORTATION
JOB PROFILE**



Update



Formal Review

Date Submitted 5/16/17

SECTION I - Identification

Working Title: Field Services Engineer

Department: Transportation

Job Code Number: 172517

Division & Bureau: Rail, Transit, and
Planning Division, Environmental Services
Bureau

Job Code Title: Civil Engineering Specialist

Section & Unit: Environmental Engineering
Section, Field Services Unit

Pay Band: 7

Work Address: Helena, MT 59601

Position Number: 33018

Phone: 406-444-7224

☐ FLSA Exempt ☒ FLSA Non-Exempt ☒ Non-Union ☐ MPEA ☐ Blue Collar

Profile Completed By:

Tom Martin, P.E., Environmental Services Bureau Chief

Work Phone:

444-0879

Work Unit Mission Statement or Functional Description:

MDT's mission is to serve the public by providing a transportation system and services that emphasize quality, safety, cost effectiveness, economic vitality and sensitivity to the environment.

The principal goals of the Rail, Transit and Planning Division are to develop and implement a long-range multimodal construction program that addresses Montana's most important statewide transportation needs and to support the development and safety of Montana's multimodal transportation system. These dual goals are addressed through the complex interaction and interrelationship of the Data and Statistics; Policy, Program & Performance Analysis; Grants; Environmental Services; and Multimodal Planning Bureaus.

The Environmental Services Bureau (ESB) provides guidance to the Department to ensure statewide environmental stewardship and compliance with all environmental laws, rules, regulations, policies, orders, and agreements. The ESB identifies and evaluates potential impacts of transportation construction and maintenance activities on natural, social, and economic resources and recommends measures to avoid, minimize, or mitigate such impacts in compliance with applicable local, state, federal, and tribal regulations and policies. Resources evaluated by ESB include those pertaining to

fish, wildlife, vegetation, wetlands, water quality, historic, cultural, archaeological, paleontological, hazardous and solid waste, erosion control, air quality, noise, visual, social, economic, etc.

The ESB is comprised of the Engineering Section, the Resources Section, and the Remediation and Assessment Section.

The Environmental Engineering Section plays an integral part in ensuring that MDT's work is conducted in accordance with laws such as the National Environmental Policy Act (NEPA), Montana Environmental Policy Act (MEPA), Clean Water Act (CWA), Montana Water Quality Act, and applicable MDT and Federal Highway Administration (FHWA) rules, standards and guidelines to accomplish the project development goals and objectives of MDT. The Section maintains a high level of knowledge, skill, and ability in applying these laws to MDT's activities: preconstruction, planning, construction, maintenance, motor carriers, and facilities. The Section coordinates with planning, design, maintenance, and construction, and develops guidelines and procedures to ensure that all MDT projects meet the requirements of NEPA, MEPA, the CWA, and other applicable federal, state, and local laws.

Describe the Job's Overall Purpose:

This position serves as the Field Services Engineer (FSE) in the Environmental Engineering Section of the Environmental Services Bureau. This position reports to the Environmental Engineering Section Supervisor. This position provides guidance, technical expertise, mentoring, and coordination of the five (5) District Environmental Engineering Specialists (DEES), the Statewide Environmental Engineering Specialist (SEES), and the Reclamation Specialist in terms of erosion and sediment control and environmental permitting. The FSE serves as a Unit Supervisor for the Field Services Unit, directly supervising the SEES, the Reclamation Specialist, Butte DEES, and the Glendive DEES. The FSE indirectly supervises the DEES in the other three (3) districts. The FSE communicates with the District Construction Engineers, Maintenance Chiefs, District Preconstruction Engineers, and others to ensure maintenance and construction needs are being met in each district by the Field Services Staff.

This position is responsible for managing MDT's state-wide programs for erosion and sediment control; construction and maintenance environmental permitting; environmental compliance activities and programs to ensure compliance with local, State, Federal and Tribal regulations. This position is responsible for developing and delivering statewide environmental compliance and stewardship training programs for MDT construction and maintenance personnel; contractors; other MDT work units; and other local, state, and federal agencies in accordance with ESB policy. This position exercises solid environmental engineering judgment coupled with accurate interpretation of environmental laws.

This position is responsible for ensuring statewide consistency of work and work products in terms of ESB policy and procedures and compliance with local, state, federal and tribal environmental regulations. Ensures interactions with resource/regulatory agencies regarding construction, maintenance, and stormwater permitting are consistent with ESB policy and procedures. Provides thorough communication between Headquarters and the DEES including one-on-one on-site meetings to provide "hands-on" assistance to the DEES. Conducts Headquarters review of contractor and maintenance permit application submittals. Permitting responsibilities include construction stormwater (MPDES and NPDES), MPDES General Permit for Storm Water Discharge Associated with Small Municipal Separate Storm Sewer System (MS4), Clean Water Act Section 404 Permits, Clean Water Act Section 401 Certifications, SPA 124 Notifications, 318 Turbidity Authorizations, etc. Coordinates MS4 activities within the ESB to ensure a consistent state-wide approach to the MS4 program.

SECTION II - Major Duties or Responsibilities

This section should be a clear concise statement of the position's major duties and the approximate percent of work time for each duty

% of Time

A.	<u>PROGRAM PLANNING AND DEVELOPMENT</u>	<u>35%</u>
1.	Directs, plans, coordinates and implements MDT's statewide erosion and sediment control program, permitting for construction methodologies and temporary facilities, and Maintenance projects, and related program operations and activities. Develops short and long-term plans and program objectives to ensure the program complies with local, state, federal, tribal and ESB and Department standards and directives, and develops cost-effective plans for ongoing program operations. This work involves assessing current environmental standards, regulations, laws and protection and/or mitigation strategies; and applying them where applicable on MDT construction and maintenance projects throughout the state. Develops long-term implementation strategies for those assessments through coordination with other Divisions, Bureaus and Sections, as well as other government agencies (e.g., US Army Corps, FWP, EPA, DEQ).	
2.	Develops state-wide procedures, guidelines, and standards that comply with Federal, State, and Tribal environmental laws and requirements, and provides the necessary guidance for implementation by the DEES, SEES, Reclamation Specialist, , Construction, Maintenance, and other project personnel. Assesses changes in national and state environmental trends and standards and applies them to MDT and the contractor's practices and standards in a manner that will meet specific and variable construction project needs. Understands new technologies and other changing factors to develop new approaches to policy and program issues.	
3.	Analyzes and evaluates changes in local, state, federal and tribal environmental requirements and incorporate them into ongoing unit programs and departmental projects and is able to resolve compliance deficiencies that may impact the construction or maintenance programs. Typical Federal, State, and Tribal regulations that the incumbent must be familiar with include the Clean Water Act (CWA), National Pollutant Discharge Elimination System (NPDES), Montana Pollutant Discharge Elimination System (MPDES), National Environmental Policy Act (NEPA), Montana Environmental Policy Act (MEPA), Montana Stream Protection Act, Montana Water Quality Act, MPDES MS4, etc.	
4.	Oversees DEES/SEES work related to the Department's statewide Stormwater Management Plan (SWMP) for MDT's MPDES permit for discharges from its Municipal Separate Storm Sewer Systems (MS4s). Ensures that the DEES/SEES local efforts efficiently and consistently address each of the six minimum control measures including Public Education and Outreach; Public Participation/Involvement; Illicit Discharge Detection and Elimination, Construction Site Stormwater Runoff Control, Post-Construction Stormwater Management, and Pollution Prevention/Good Housekeeping for Municipal Operations.	
5.	Develops the Department's statewide Erosion and Sediment Control Program to establish Best Management Practices (BMPs); define standards, objectives, and procedures; and to ensure consistency in compliance with and implementation of Federal and State erosion and sediment control requirements. Develops innovative approaches to water protection issues while seeking to provide for the most economical, efficient and cost-effective measures for stormwater management.	
6.	Develops site-specific strategies for ensuring efficient, cost-effective compliance with environmental permits and regulations on construction projects.	

7. Responds to environmental engineering problems and water quality issues referred to the Department by engineers, contractors, city/county officials and others. Developing a response includes analyzing and evaluating the nature and scope of specific environmental, design, and/or construction problems; consulting with MDT staff, contractors, regulators, and others; and developing solutions and alternatives that ensure water quality protection on MDT construction and Maintenance projects.
8. Attends public and professional meetings and conferences. Evaluates information; formulates ideas and promotes effective standards and procedures related to Best Management Practices (BMPs), water quality standards, compliance, permitting processes, and related issues. Provides coordination with other programs, ensure that Bureau and Section program goals and objectives are effectively represented, and will provide professional expertise and advice.

B. PROGRAM ADMINISTRATION

45%

1. Monitors National and State environmental regulations, water quality standards, construction practices, and other issues; and develops recommendations to assist the Engineering Section Supervisor in developing environmental compliance and protection strategies and standards. Considers a variety of factors related to new technologies, developmental methods and procedures, and applies them to existing program performance standards and construction processes. The incumbent gathers input and expertise from the DEES, the Reclamation Specialist, the SEES for use in drafting ESB policy.
2. Oversees and/or conducts construction site compliance evaluations for MDT construction and maintenance projects to ensure that the local, state, federal and tribal environmental water quality standards are being adhered to. Evaluates actual and potential compliance deficiencies of construction project sites, documents findings, takes sample tests and gathers other pertinent data as necessary for compliance certification. Develops and recommends compliance attainment and maintenance measures; and coordinates with contractors and project staff to resolve problems.
3. Directs and oversees environmental field project reviews and environmental engineering analyses to ensure that project designs reflect reasonable, feasible, and practicable application of environmental regulations and requirements. Reviews and recommends approval of proposed design modifications that affect changes to permitting requirements and Environmental Document commitments on a project and will recommend, corrective actions, mitigation plans, and make other recommendations for corrective actions.
4. Oversees the construction and maintenance permitting review processes by providing approval of applications prior to submittal to agencies and review of permits prior to distribution to the field personnel.
5. Drafts or oversees preparation of special reports, studies, and proposals related to environmental compliance and the permitting process to ensure that appropriate environmental engineering principles, regulations, and practices are incorporated into statewide construction and maintenance processes.
6. Ensures statewide uniformity and consistency with established ESB policy and interpretation of environmental regulations through coordinating the efforts of the five (5) DEES, the Reclamation Specialist, and the SEES. Reviews overall work plans, priorities, and procedures and monitors progress through meetings, consultations and field visits. Incumbent conducts staff meetings, continuing educational training, disseminates data, and promotes information exchange for support and advancement of the Department's, District's, and Bureau's goals. Reviews

developmental methods and procedures for construction permitting, maintenance permitting, and stormwater management.

7. Directs and coordinates administrative details related to construction permitting, maintenance permitting, and storm water management to ensure expenditures are reasonable as well as in compliance with Federal and State requirements. Researches and monitors environmental engineering practices and standards, determining their applicability to MDT operations and objectives, and developing policies and procedures to implement the most efficient strategies and practices
8. Provides information for the preparation of biennial budgets for the Engineering Section Supervisor; the incumbent develops recommendations for allocations for annual fiscal operational plans, and recommends spending priorities by reviewing past funding practices, anticipated projects and expenditures, program goals and objectives, and related personnel and other administrative expenses.
9. Develops and prepares responses, negotiation options, and mitigation measures regarding Federal, State, and Tribal water quality violations issued to the Department.
10. Monitors program expenditures to ensure that money is spent as planned and tracks funding levels through review of financial reports and preliminary approval of expenditures. Reviews and recommends approval of requisitions, expense claims, vendor claims, etc. to ensure the Section's budgets are not exceeded and Department resources are used in the most efficient manner possible.
11. Determines and fulfills procurement needs of the program including responsibility for developing specifications, ensuring compliance to Department procurement practices, developing budget justifications and submitting requests, and integrating equipment into Section operations to ensure maximization of resources.

C. SUPERVISION

15%

1. Directly or indirectly manages professional staff of the Field Services Unit by reviewing and revising overall work plans, priorities, and procedures and monitoring progress through meetings and consultations. Conducts staff meetings, disseminates data, and promotes information exchange for support and advancement of Section, Bureau, Division, and Department goals.
2. Establishes and approves overall responsibilities and allocation of subordinate positions. Recommends and justifies requests for additional personnel or consultants as necessary.
3. Determines training needs of Unit staff through analysis of program effectiveness; new environmental and engineering policies, procedures, and standards; evolving technologies; and staff performance. Prepares, presents, or coordinates training through personnel specialists, training offices, or outside consultants to ensure that modern technologies and operational strategies are available.
4. Evaluates the performance of directly supervised positions and completes performance evaluations and creates performance plans. Recommends, implements, and monitors corrective actions. Enforces disciplinary policies to ensure consistency in the application of disciplinary actions.
5. Ensures that Unit staff complies with State and Department personnel rules, regulations, and policies. Resolves grievances at the lowest level whenever possible.

6. This position performs a variety of other duties in support of ongoing Bureau and Department operations.

D. OTHER DUTIES

05%

1. Performs a variety of other duties as assigned by the Engineering Section Supervisor or as determined in support of the Department's mission and Section objectives. This includes managing special projects, representing the Bureau or Department at various meetings and conferences, participating in ongoing training and educational programs, and performing a variety of other duties as assigned.

The following duties and/or specific tasks listed under section II above are considered "essential functions" because they require specialized expertise and skill and are the primary reasons the job exists (they must be performed by this position with or without accommodations):

Duty A: Program Planning and Development
Duty B: Program Administration
Duty C: Supervision

The following mental and physical demands are associated with these essential functions:

PHYSICAL

- Traveling throughout the state typically in excess of 12,000 miles per year to conduct project reviews, inspections, and site evaluations; attend public/project meetings; and meet with government officials. Enforcement activities and investigations may lead to confrontational situations.
- Reading technical papers, manuals, publications and statutes, in hard copy and electronic format.
- Traveling across the state and out of state for training and conferences.
- Light lifting (less than 50 lbs.)
- Remaining seated for extended periods of time with occasional walking, standing and bending
- Walking along existing and proposed highway corridors for field reviews
- May work in proximity with heavy construction equipment such as front end loaders, back hoes and other earth moving equipment
- May work in adverse weather conditions
- Operating a personal computer for extended periods of time
- Communicate clearly in writing, and verbally (in person and over the phone) to a wide variety of audiences of varying technical levels;

MENTAL

- Interpret and analyze laws and regulations and determine how to integrate the requirements into the Departments programs and processes.

- Communication and dispute resolution among various Districts, Bureaus, Agencies, and private contractors.
- Apply dynamic and often contradictory laws and regulations. Interact with numerous regulatory agencies and officials.
- Deal with the public and contractors on a regular basis
- Ability to multi-task
- Demands for accuracy in all aspects of work
- Ability to meet inflexible deadlines
- Comparing data
- Compiling information
- Analyzing
- Coordinating
- Synthesizing
- Negotiating
- Instructing
- Fosters effective relationships with regulatory personnel and other environmental and contracting personnel

Does this position supervise others? ☒ **Yes** ☐ **No**

Number directly supervised: 4

Position Number(s) of those supervised:

33003 Environmental Science Specialist (Reclamation Specialist)
33028 Environmental Engineering Specialist (SEES)
90758 Environmental Engineering Specialist (Butte DEES)
91998 Environmental Engineering Specialist (Glendive DEES)

Number indirectly supervised: 3

Position Number(s) of those indirectly supervised:

92498 Environmental Engineering Specialist (Billings DEES)
90178 Environmental Engineering Specialist (Missoula DEES)
92338 Environmental Engineering Specialist (Great Falls DEES)

Attach an Organizational Chart.

SECTION III - Minimum Qualifications - List minimum requirements for the first day of work.

Critical knowledge and skills required for this position:

KNOWLEDGE: Incumbent will need an extensive knowledge of local, state, federal, and tribal water quality regulations, standards, and requirements; transportation construction and maintenance activities and statewide construction project needs and processes; Department objectives; and practical environmental engineering applications to implement erosion control and permitting programs required for critical federal funding. Other problems involve site-specific environmental issues, unique construction requirements, and politically or technically contentious issues associated with large infrastructure construction project objectives and water quality regulations.

This position requires extensive knowledge of accepted and developmental theories, concepts, and principles of civil and environmental engineering as they relate to environmental resource management, water quality protection, and erosion control as well as related mathematics and physical sciences (e.g., hydrology, geotechnical analysis, soil mechanics, etc.). The position also requires knowledge of the

methods and practices of highway construction; engineering and design; and related policies, methods, procedures, specifications, standards, and regulations; advanced research methods and techniques; environmental permitting processes and requirements; applicable state, federal, AASHTO, and FHWA requirements and standards; applicable state, federal, and tribal laws and permit requirements. Program administration requires knowledge of public administration; program management; budget development and monitoring; applied research methods and techniques; and contract administration principles. Team coordination responsibilities require knowledge of Department and State personnel procedures and policies, program requirements, and personnel management practices and techniques.

SKILLS: The incumbent must be able to effectively manage multiple tasks and prioritize those tasks based on critical risk assessment capabilities. The incumbent must communicate well with a wide variety of audiences. The incumbent must be able to work well independently and as part of a team. The incumbent must be able to effectively lead a diverse team to gain buy-in and commitment to efficient environmental compliance.

Behaviors required to perform these duties:

See MDT Core Behaviors

Education:

Check the one box indicating minimum education requirements for this position for a new employee the first day of work: No education required Related AAS/2-years college/vocational training

- | | |
|---|---|
| <input type="checkbox"/> High school diploma or equivalent | <input checked="" type="checkbox"/> Related Bachelor's Degree |
| <input type="checkbox"/> 1-year related college/voc. training | <input type="checkbox"/> Related Master's degree |

Please specify the acceptable fields of study:

Acceptable: Environmental Engineering, Civil Engineering or a closely related engineering field

Other education, training, certification, or licensing required:

This position requires a Professional Engineer (PE) license in the State of Montana.

Experience:

Check the one box indicating minimum work-related experience requirements for this position for a new employee the first day of work:

- | | |
|---|---|
| <input type="checkbox"/> No prior experience required | <input type="checkbox"/> 3 years |
| <input type="checkbox"/> 1 year | <input checked="" type="checkbox"/> 4 years |
| <input type="checkbox"/> 2 years | <input type="checkbox"/> 5 or more years |

This position requires a Bachelor's Degree in Environmental Engineering, Civil Engineering or a closely related engineering field and four (4) years of progressively responsible experience in environmental or civil engineering, construction, maintenance, or a related field. A Master's degree in Environmental Engineering, Civil Engineering or a closely related engineering field and three (3) years of progressively responsible experience in environmental or civil engineering, construction, maintenance, or a related field may be considered in lieu of the stated requirements. This position requires at least one year of successful supervisory experience. Credit for one year of supervisory experience may be given for at least one year spent in a leadership role or successfully completed management development training.

Alternative Qualifications:

This agency will accept alternative methods of obtaining necessary qualifications.

☒ Yes ☐ No

Alternative qualifications include:

Other equivalent combinations of education and experience may be considered.

SECTION IV – Other Important Job Information

☐ Fingerprint check

☒ Valid driver's license

☐ Background check

☒ Other; Describe

This position requires travel throughout the state typically in excess of 12,000 miles per year to conduct project reviews, inspections, and site evaluations; attend public/project meetings; and meet with government officials. This position requires periodic over-night stays away from Helena. Compliance activities and investigations may lead to confrontational situations. Duties are often performed on active construction sites in proximity to heavy equipment, hot asphalt, and high speed traffic, requiring use of hard hats and safety training. Extended working hours and unusual shifts are required to meet project deadlines.

SECTION V – Signatures

Signature indicates this statement is accurate and complete.

Employee:

Name: _____ Title: _____

Signature: _____ Date: _____

Immediate Supervisor:

Name: _____ Title: _____

Signature: _____ Date: _____

Bureau Chief:

Name: _____ Title: _____

Signature: _____ Date: _____

Division/District Administrator:

Name: _____ Title: _____

Signature: _____

Date: _____

Department Designee:

Keni Grose/Designee

Chief Human Resources Officer
Human Resources Division

Signature: _____

Date: _____